www.torcup.com

Topside Bolt Tensioning
Series: THTB Range

"The THTB range of bolt tensioning tools are some of the most compact and reliable tensioners available today."

BEST IN CLASS

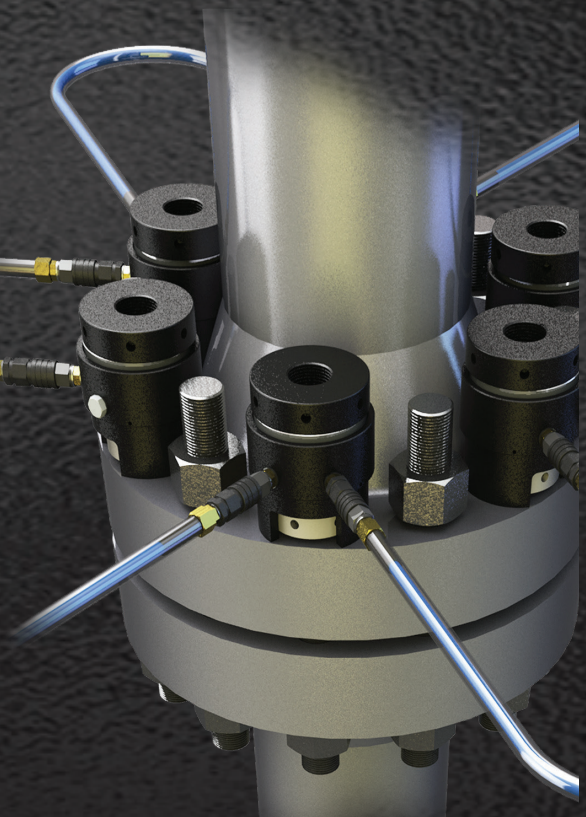
TorcUP's Topside Tensioner Series provide the highest level of accuracy, safety and productivity on critical joints across the Oil & Gas and Power Generation marketplaces. They can be used on a variety of applications, such as heat exchangers, reactors, pipe flanges, and blind flanges. The THTB series provides a simple, safe, accurate and time saving method for tightening topside bolts and studs; maximizing economy and versatility by utilizing common hydraulic heads with interchangeable bridges, sockets and pullers.

Link Hose System

One of the many advantages of hydraulic bolt tensioning is the ability to link a number of tensioners together and simultaneously load all the bolts on a joint. Although this gives excellent load distribution, an enormous variety of flexible hose assemblies are necessary - which may confuse the user. To overcome this problem TorcUP offers a single assembly called a 'Link hose'. This length of flexible high pressure hose, fitted with male and female quick connect couplings at opposite ends is a fast and economical method of connecting multiple tensioners together - the number of hoses required is the same as the number of tools to be linked - a simple formula to remember.

Features & Benefits

- High quality seals for reliable, leak free operation
- Powerful bolt load capacity
- 15mm Ram Stroke
- Only 7 Base tools to cover bolt sizes 3/4" to 4"
- Supplied with Nut Rotating Sockets, no need for drilled nuts.
- Over stroke pressure safety device
- Manufactured from high strength steel for long life.
- Easy Hose assembly with TorcUP Link Hose System.



Suitable for use on most standard flanges:
ANSI B16.5
ANSI B16.47
MSS-SP44
API-6A
API-17D

TorcUP, Inc.
1025 Conroy Place
Easton, PA 18040
USA

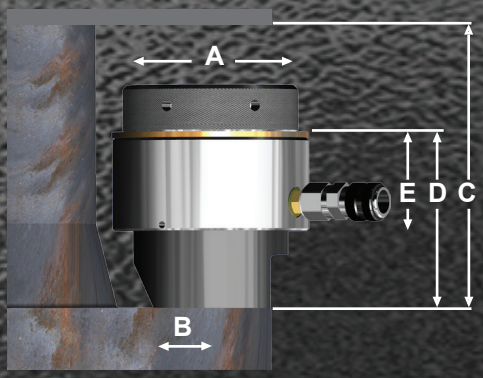
Telephone: +1 610-250-5800
Fax: +1 610-250-2700

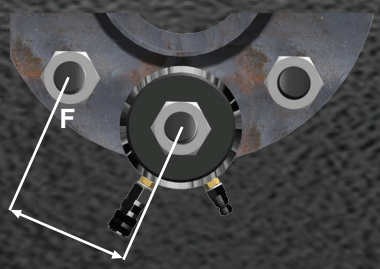
e-mail: sales@torcup.com
website: www.torcup.com

TorcUP products are subject to continual development and TorcUP reserves the right to make changes in the specification and design of their products without prior notice. All rights reserved. Reproduction in whole or in part without the permission of TorcUP is prohibited.

User Safety

When using hydraulic bolt tensioners, it is important that the maximum movement of the piston/ram is not exceeded. In the unfortunate situation when stroke is exceeded, a simple failure mechanism inside most TorcUP tensioners directs any escaping fluid away from the operator and deposits it inside the device. A red warning indicator line becomes visible as the maximum piston extension position is reached.





Simplified Principle

Note: for clarity the pressure hose is not shown on the following diagrams.

Technical Specifications

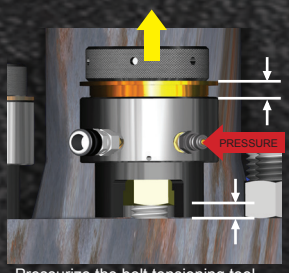
Tool	Part No.	Thread Size		Part No.	Bolt Load		Ram Area		Stroke	Weight	A	B	C	D	E	F
Ident	Imperial	Inch	mm	Metric	Ton	Kn	In2	mm2	In	lbs	In					
1	THTB-1CT-012	0.75	20	THTB-1CT-20M	26.19	233	2.410	1555	0.47	5.1	2.9	0.9	5.7	3.3	1.9	2.1
	THTB-1CT-014	0.875	22	THTB-1CT-22M						4.9		0.9		3.3		2.1
	THTB-1CT-100	1	24	THTB-1CT-24M						4.9		0.9		3.3		2.4
	THTB-1CT-102	1.125	27	THTB-1CT-27M						4.6		1.2		3.2		2.4
2	THTB-2CT-102*	1.125	27	THTB-2CT-27M*	48.67	433	4.470	2884	0.59	12.1	4.1	1.3	6.9	3.9	2.4	2.4
			3	THTB-2CT-30M						11.9		1.5		4.1		2.9
	THTB-2CT-104	1.25	33	THTB-2CT-33M						12.1		1.3		3.9		2.9
	THTB-2CT-106	1.375	36	THTB-2CT-36M						11.9		1.5		4.1		3.2
	THTB-2CT-108	1.5	39	THTB-2CT-39M						12.6		1.6		4.1		3.3
3	THTB-3CT-108*	1.5	39	THTB-3CT-39M*	88.91	791	8.170	5271	0.59	20.9	5.4	1.7	7.9	4.7	2.3	3.3
	THTB-3CT-110	1.625	42	THTB-3CT-42M						20.9		1.7		4.7		3.7
	THTB-3CT-112	1.75	45	THTB-3CT-45M						20.3		1.8		4.7		3.8
	THTB-3CT-114	1.875	48	THTB-3CT-48M						22.0		1.9		4.7		4.0
	THTB-3CT-200	2	52	THTB-3CT-52M						21.4		2.0		4.7		4.1
4	THTB-4CT-200*	2	52	THTB-4CT-52M*	142.42	1267	13.090	8445	0.59	35.7	6.8	2.3	9.1	5.2	2.4	4.1
	THTB-4CT-204	2.25	56	THTB-4CT-56M						35.7		2.3		5.2		4.8
	THTB-4CT-206	2.375	60	THTB-4CT-60M						35.7		2.6		5.2		5.1
	THTB-4CT-208	2.5	64	THTB-4CT-64M						36.2		2.6		5.2		5.1
5	THTB-5CT-208*	2.5	64	THTB-5CT-64M*	205.70	1830	18.905	12197	0.59	55.8	7.9	2.8	10.0	5.9	2.5	5.1
			68	THTB-5CT-68M						55.8		2.8		5.9		5.9
	THTB-5CT-212	2.74	72	THTB-5CT-72M						56.4		2.8		5.9		5.9
	THTB-5CT-300	3	76	THTB-5CT-76M						54.7		3.0		5.9		6.1
6	THTB-6CT-300*	3	76	THTB-6CT-76M*	281.24	2502	25.857	16682	0.59	79.1	9.3	3.3	11.3	6.4	2.5	6.1
			80	THTB-6CT-80M						79.1		3.3		6.4		6.9
	THTB-6CT-304	2.25	85	THTB-6CT-85M						79.1		3.4		6.4		6.9
	THTB-6CT-308	3.5	90	THTB-6CT-90M						80.0		3.7		6.4		7.3
7	THTB-7CT-308*	3.5	90	THTB-7CT-90M*	295.51	2629	27.172	17530	0.59	93.3	9.6	4.0	12.6	7.0	2.6	7.3
	THTB-7CT-312	3.75	95	THTB-7CT-95M						93.3		4.0		7.0		7.5
	THTB-7CT-400	4	100	THTB-7CT-100M						88.8		4.0		7.0		7.8

***** ***Special Order Tensioners***

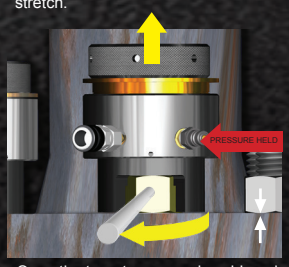
Maximum working pressure = 21750 psi : 1500 bar

Puller bars are based on standard coarse metric threads and standard UN imperial thread forms. If the standard tensioner is not suitable, TorcUP offers special tensioner designs on request.

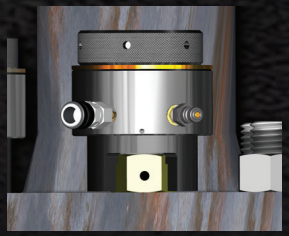
Assemble the bolt tensioning tool onto the bolt to be tensioned.



Pressurize the bolt tensioning tool. The nut will raise and the bolt will stretch.



Once the target pressure is achieved, 'hold' the pressure and rotate the nut back down against the joint face.



Release the pressure. The bolt is now loaded and the tool can be removed.